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CENTRAL FAX CENTERApplication Serial No: 10/560,375
Responsive to the Office Action mailed on: April 10, 2007

JUL 06 2007

REMARKS

The following is in response to the Office Action mailed on April 10, 2007. No new matter is added. Claims 1-9 are pending.

§102 Rejections:

Claims 1, 6 and 8 are rejected as being anticipated by Von Behren (US Patent No. 6,558,324). This rejection is traversed.

Claim 1 is directed to an ultrasonic diagnostic apparatus that requires, among other features, a tomographic image processing part that forms a tomographic image representing a structure of the subject based on a reception signal and a tissue characteristic image processing part that forms a tissue characteristic image representing a physical characteristic of a tissue of the subject through analysis of the reception signal. Claim 1 also requires a control means that, during an operation of ultrasonic wave transmission/reception, allows the tomographic image to be renewed in an arbitrary cycle, displayed by the display means, and stored in the memory means, while allowing the tissue characteristic image to be renewed in a cycle different from the cycle for the tomographic image. An advantage of these features is that the ultrasonic diagnostic apparatus can display a superimposed tomographic image and tissue characteristic that are in conformity with each other in terms of time-phase and positional relationships in one mode and in a live mode can display a tomographic image in real time.

Von Behren does not disclose or suggest these features. Von Behren is directed to an ultrasonic imaging method that discloses displacement and elasticity arrays $D(i, j, k)$, $E(i, j, k)$ as well as a frame data array $r(i, j, k)$. The rejection interprets the elasticity image as the tissue characteristic image and B-mode image as the tomographic image of claim 1. Both the elasticity image determined by $E(i, j, k)$ and the tomographic image determined by $r(i, j, k)$ have a common refresh rate and are in approximate conformity with each other in terms of time-phase and positional relationships (see column 8, line 32-column 9, line 45). Accordingly, Von Behren does not contemplate any adjustment of the two kinds of images to be in synchronization and therefore fails to disclose a control means that allows the tomographic image to be renewed in an arbitrary cycle, displayed by the display means, and stored in the memory means, while allowing the tissue

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characteristic image to be renewed in a cycle different from the cycle for the tomographic image, as required by claim 1. For at least these reasons claim 1 is not suggested by Von Behren and should be allowed. Claims 6 and 8 depend from claim 5 and should be allowed for at least the same reasons.

§103 Rejections:

Claims 2-5 are rejected as being unpatentable over Von Behren in view of Varghese (US Patent No. 6,749,571) and further in view of Selzer (US Patent No. 6,979,294). This rejection is traversed. Claims 2-5 depend from claim 1 and should be allowed for at least the same reasons. Applicants do not concede the correctness of this rejection.

Claim 7 is rejected as being unpatentable over Von Behren in view of Nightingale (US Patent No. 6,371,912). This rejection is traversed. Claim 7 depends from claim 1 and should be allowed for at least the same reasons. Applicants do not concede the correctness of this rejection.

Claim 9 is rejected as being unpatentable over Von Behren in view of Seward (US Patent No. 6,398,736). This rejection is traversed. Claim 9 depends from claim 1 and should be allowed for at least the same reasons. Applicants do not concede the correctness of this rejection.

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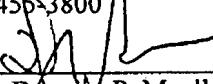
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Conclusion:

Applicants respectfully assert claims 1-9 are in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.

Respectfully submitted,

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